



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

3 APPLICANT : BRENT D. PEMBERTON )  
4 SERIAL NO. : 10/053,718 )  
5 FILED : January 22, 2002 )  
6 FOR : METHOD AND APPARATUS )  
7 FOR EXERCISING HAND )  
8 )  
9 )  
10 )  
11 )  
12 )  
13 )  
14 )  
15 )  
16 )  
17 )  
18 )  
19 )  
20 )  
21 )  
22 )  
23 )  
24 )  
25 )  
26 )  
27 )  
28 )

) Ex. V. K. Hwang  
) Art Unit 3764

10 DECLARATION BY BRENT D. PEMBERTON

11 Now comes Brent D. Pemberton and declares that:

- 12
- 13 1. He is applicant in the above-identified application.
- 14
- 15 2. He obtained an Exer-Ring and the instructions that accompany an Exer-Ring. A
- 16 copy of the instruction is attached hereto as Exhibit A.
- 17
- 18
- 19
- 20
- 21
- 22
- 23

I hereby certify that this correspondence is being  
deposited with the United States Postal Service as  
CERTIFIED MAIL NO.

24 RETURN RECEIPT REQUESTED in an  
envelope addressed to: HON. COMMISSIONER OF  
25 PATENTS AND TRADEMARKS, Washington, PoBox 1450  
26 D.C. 20231 on Oct 11 05

Alexandria VA 22315

27 TOD R. NISSE, Reg. No. 29241

28 DATE 10-11-05

- 1
- 2 3. The instructions attached hereto as Exhibit A describe a variety of exercises that
- 3 can be accomplished with an Exer-Ring. The instructions do not suggest that the
- 4 Exer-Ring can be elastically pivoted about a centerline Y (Fig. 2 of Applicant's
- 5 drawings) in the manner of Applicant's invention.
- 6
- 7 4. The Exer-Ring is, in fact, made of a relatively hard, smooth plastic with a relatively
- 8 slippery surface. Assuming, for sake of discussion, that an individual would attempt
- 9 to pivot about a centerline Y with his fingers the part of the Exer-Ring gripped with
- 10 his fingers, such a maneuver is extremely difficult, if not impossible. The skin on a
- 11 user's finger tips slips over the surface of the Exer-Ring and does not elastically
- 12 pivot the Exer-Ring.
- 13
- 14 5. Applicant will, if requested by the Examiner, provide an Exer-Ring for the
- 15 Examiner's evaluation.
- 16
- 17 6. Applicant confirms the in 1993 he initiated work on the invention, and that in 2000,
- 18 after his son was killed by an automobile, named the apparatus after his son, i.e.,
- 19 called the invention the "Benji T. Gripster". Applicant also notes that financial
- 20 limitations significantly slowed development of his invention and that the invention
- 21 as described in the present application was not realized until long after 1993. The
- 22 web site that markets Applicant's invention and that is noted by the Examiner was
- 23 initiated in the fall of 2001, not long before the present patent application was filed.
- 24
- 25
- 26
- 27
- 28

1           Further Declarant saith naught.

2

3

Respectfully submitted,

4

5

*Brent D. Pemberton*  
BRENT D. PEMBERTON

6

7

Attorney Docket No. 1074-P-1

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

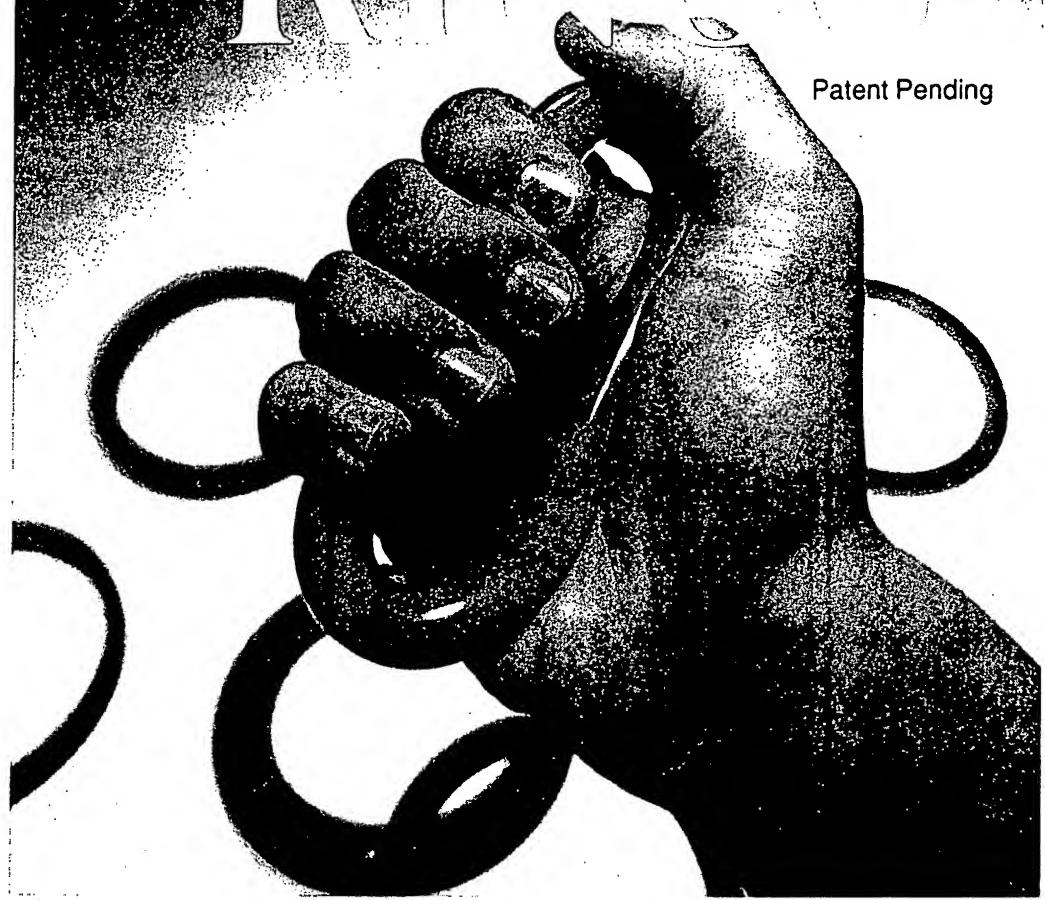
28

# **EXHIBIT**

## **A**

# EXER- RINGS™

Patent Pending



**FOR  
GRIP  
STRENGTH  
&  
RANGE  
OF  
MOTION**

BEST AVAILABLE COPY



**EXER EQUIPMENT, INC.**

© Copyright 1990  
Exercquipment, Inc.  
All rights reserved.

# **EXER-RINGS™**

Patent Pending

The EXER-RINGS are designed to develop strength, strength endurance and muscular endurance. With an increase in one or all of these qualities, you will be better able to:

- 1) Prevent injury to the fingers, hands and wrists.**
- 2) Increase gripping force.**
- 3) Have better control and feel of your fingers.**
- 4) Improve your sports performance, especially in the area of throwing and hitting.**
- 5) Accomplish your industrial or professional work easier and safer.**
- 6) Increase your ability to play various musical instruments such as the piano and guitar.**
- 7) Have greater accuracy in finger movements.**
- 8) Lift heavier weights in order to develop your body.**



---

# **EXER-RINGS™**

---

Patent Pending

## **SIMPLE YET EFFECTIVE**

In regard to injury prevention, it is important to understand that increased strength is most important. Many studies have shown that with greater strength the number of finger injuries that occur in sports and industry are cut down drastically. In addition, strengthening the fingers, hands, wrists and forearms is thought to be helpful in preventing common problems such as carpal tunnel syndrome and the further spread of arthritis in your fingers and hands.

When you increase your grip strength, athletic performances in which you throw or hit a ball or some other object are improved. The reason for this is that you are able to more strongly grip the implement so that all the force developed by your body is transferred into the object. There will be no negative forces upon impact or release of objects such as a 95 mph baseball.

By having better ability to manipulate each finger separately, you will have more control over a ball when throwing in addition to being able to generate more speed and spin on the ball for various effects.

You will be able to develop a better "feel" of the implement that you use. This applies in sports such as golf, tennis, badminton, and so on. It may also allow you to better execute "finesse" shots.

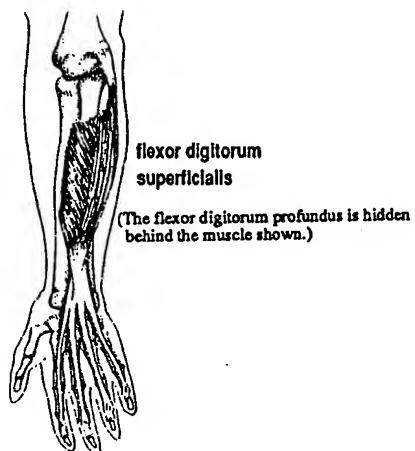
Your ability to grasp will also be enhanced and this includes a barbell in weight lifting or a football player grabbing the jersey or limb of another player. Studies have shown that when you increase grip strength sufficiently you are capable of handling up to 200 additional pounds. When the hands are weak, you must use straps in order to handle greater weight as needed for the muscles involved in executing a particular exercise. Doing this, however, weakens your fingers and hands.



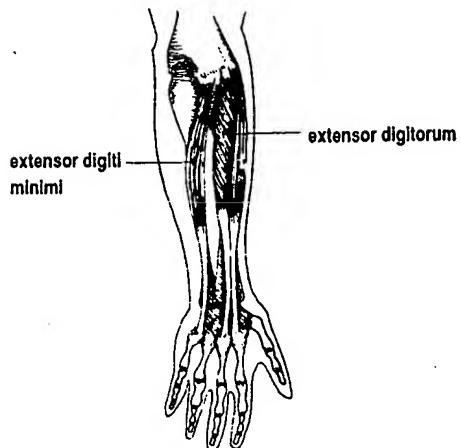
The human hand is a highly specialized part of the body through which you discern weights, shapes, textures, hardness and other qualities. To do all of its many functions, the hand has 27 bones and over 20 joints. The various actions of the fingers and hand involve the use of 33 different muscles.

Most of these muscles are in the hand and are quite small. However, there are three major muscles in the forearm that act on all four fingers at once. Two of them are flexors (*flexor digitorum superficialis*, *flexor digitorum profundus*) and one an extensor (*extensor digitorum*). This is one reason why the flexors are more powerful than the extensors.

These forearm muscles have four tendons that go to each of the fingers. However, these tendons in the lower part of the forearm are acted upon by separate groups of muscle fibers. Because of this, you can flex and extend the fingers separately as well as all at once.



Forearm Muscles--Anterior View (palm side)

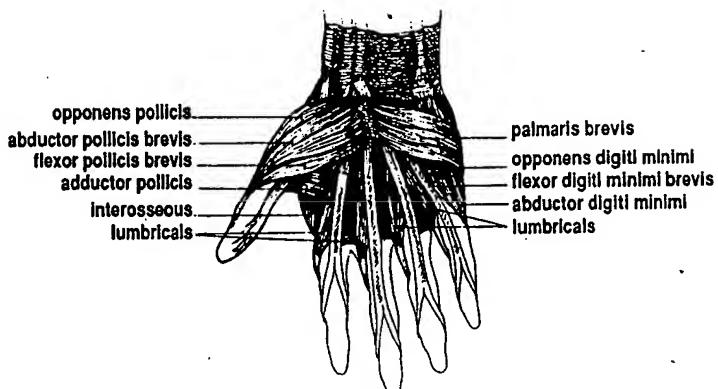


Forearm Muscles--Posterior View (Back of Hand)

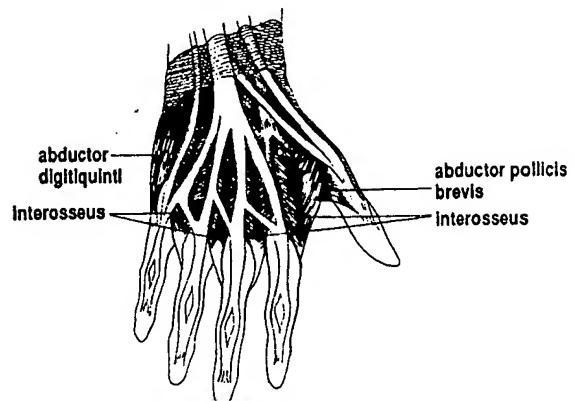
In the hand there are three groups of small muscles that flex, extend, adduct and abduct the fingers. In total there are eleven of these muscles: four lumbricales, four dorsal interossei, and three palmar interossei. There are even three muscles which act on the little finger alone and eight muscles moving the thumb. See drawings for location of these and other muscles.

The flexor muscles bring the fingers toward themselves and toward the palm. The extensor muscles pull the fingers away from each other and the palm in a straightening action. The adductors bring the fingers together in a sideward action, while the abductors pull the fingers apart sideways. Some of these muscles attach to more than one of the fingers and, because of this, you may notice more than one finger in motion.

These muscles have a close relationship to each other and, because of this, all the muscles should be developed. For example, in order to flex the tips of the fingers, the finger extensor muscles must contract to hold the first digit in place.



Hand Muscles--Palm Side Up



Hand Muscles--Back of Hand

(Use any of the Round Rings for Exercise 1.)

To get you started, following are some of the basic exercises that can be done:



Figure 1a

**1) For the finger flexors (gripping)**—Place the appropriate round-surfaced ring against the middle digits of your fingers and against the base of the thumb and palm of the hand. The ring should be perpendicular to the long axis of the fingers. Squeeze the fingers inward and together as when making a fist. Release your grip and let the ring expand to its original size and then repeat. Go through the full range of motion in each repetition.



Figure 1b

**1b**—Place the ring against the bottom pads of the fingers and base of the thumb. Squeeze maximally. Release and repeat.



Figure 1c

**1a**--Place the ring against the pads of the distal tips of the fingers and base of the thumb. Squeeze until the insides of the ring touch or come close to touching. Return to the initial position and repeat.

**1c**—Place the ring against the top part of the thumb and against one of the three positions against the fingers. Squeeze the ring maximally. Release and repeat.

(Use either of the Flat Face Rings in all of Exercise 2 because they have more stability.)

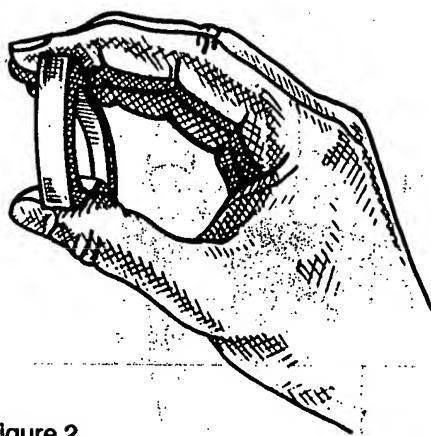


Figure 2

**2) Stiff Finger Flexion**—In this exercise you work the base finger flexors while keeping the whole finger under isometric contraction. Place the ring perpendicular to the fingers with contact on the finger tips and distal digit of the thumb. Use a flat surface ring so that you have better contact and are able to do the exercise most effectively. Press down to flatten the ring and then release and repeat.



Figure 2a

**2a— Single finger flexion (plus thumb opposition)** Place the EXER-RINGS against the pad of the thumb and the pad of the first finger (index finger). Squeeze together, release and repeat. Do the same exercise with each of the remaining three fingers.

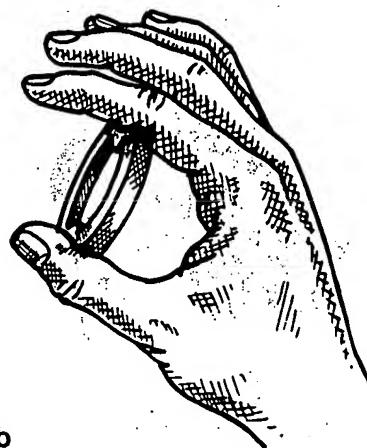


Figure 2b

**2b—**Place the ring against the middle pad of a finger and end of the thumb and squeeze. Relax the grip and repeat. Do with each finger.

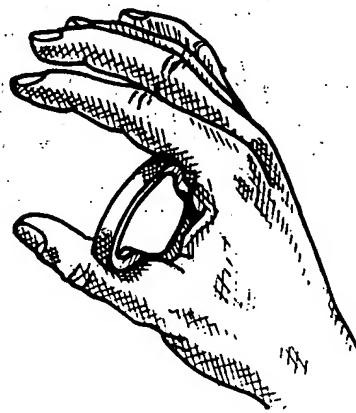


Figure 2c

**2c—**Place the ring against the base of the thumb and close to the base of the finger and squeeze. Do with each finger.

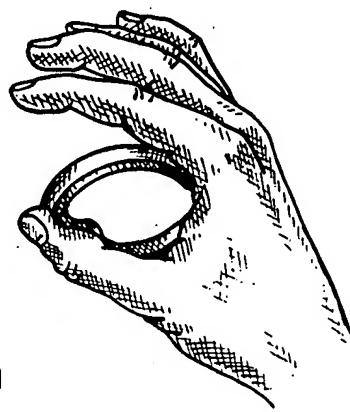


Figure 2d

**2d—**Place the ring against the thumb and base of the finger and squeeze. Do with each finger.

(Use either of the Flat Face Rings in the following exercises.)

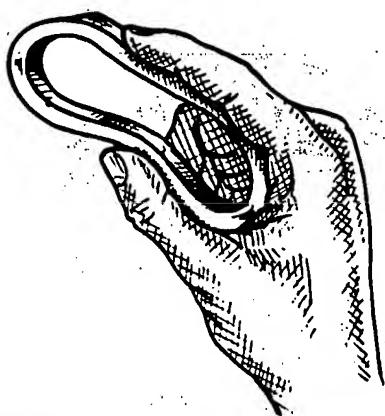


Figure 3

**3) Total Finger Flexion--**Place the EXER-RINGS in line with (parallel) to the index finger and against the thumb and palm of the hand. There should be contact on the front side of the finger and inside of the thumb and palm of the hand. When in position, squeeze maximally until the finger and thumb almost touch. Then relax the grip and repeat.

Repeat the same exercise with each of the other fingers.

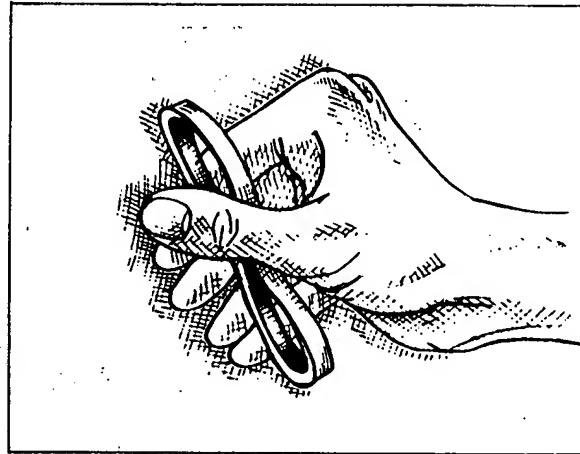


Figure 4a

*This exercise should be done with hand on a table.*

**4a--**Place the ring against the base of the thumb and upper part of the fingers. Squeeze until the ring touches. Relax and repeat.

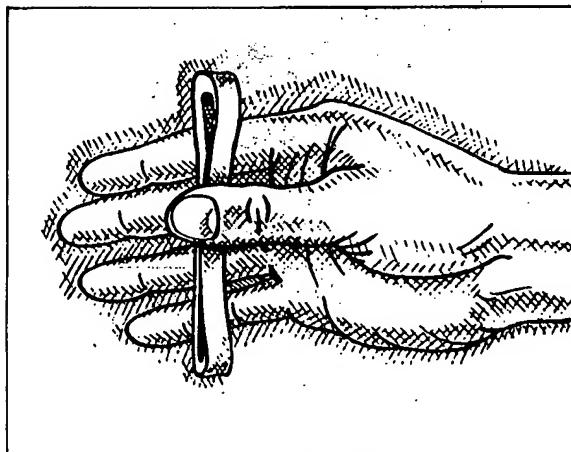


Figure 4

*This exercise should be done with hand on a table.*

**4) Thumb pincher movement--**Lay hand on a table so the four fingers are in contact. Place the ring at the tip of the thumb and across the fingers. Push down and squeeze the ring with the thumb.

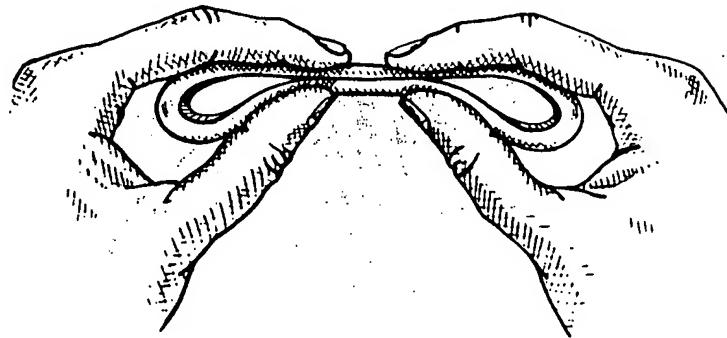


Figure 5

**5) Two hand exercises--**Hold the ring so that you look through the "hole" in front of you. Grab the ring between the first finger and thumb with both hands so that the tips of the fingers are on the top of the ring and the tips of the thumb are on the bottom of the ring. Squeeze the ring together and then relax and repeat. Do the same thing with each of the other fingers. You may find that the lighter tension Flat Face Ring must be used with the index and little finger. These fingers are typically much weaker than the others.

(Use either of the Flat Face Rings in the following exercises.)

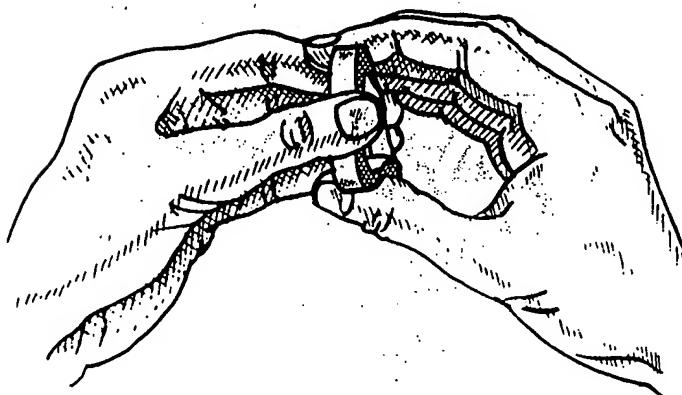


Figure 6

6) In this exercise you do the same exercise as in number 2. However, in this version you do it with two hands alternately. Grip the flat side of the ring with both hands so that one hand is placed at 12 and 6 o'clock and the other hand at 3 and 9 o'clock. You then squeeze maximally with one, release, and then squeeze and relax with the other hand. Continue in an alternating fashion.

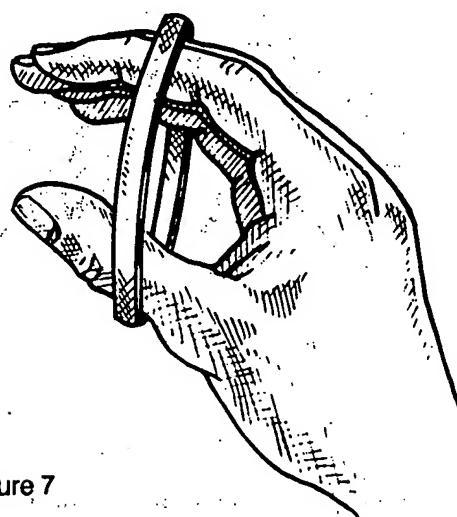


Figure 7

7) Finger Extension—Place the fingers inside a ring so that the back of the middle digits make contact with the ring. Pull the fingers apart as though trying to pull the ring apart. Hold for 4 seconds, relax momentarily and then repeat.

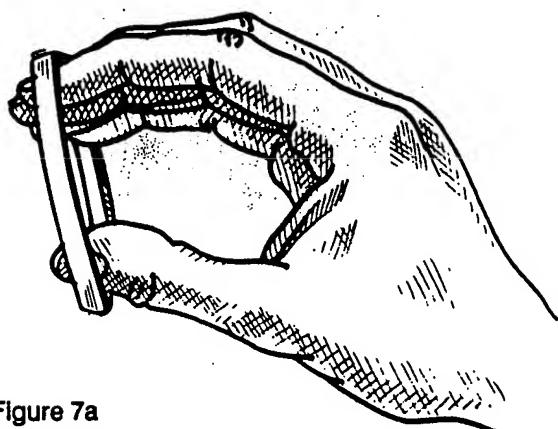


Figure 7a

7a—Place the fingers inside a ring so that the fingernails make contact with the ring (the little finger may not be able to make contact). Pull apart as hard as possible. Hold for 4-6 seconds. Relax and repeat.

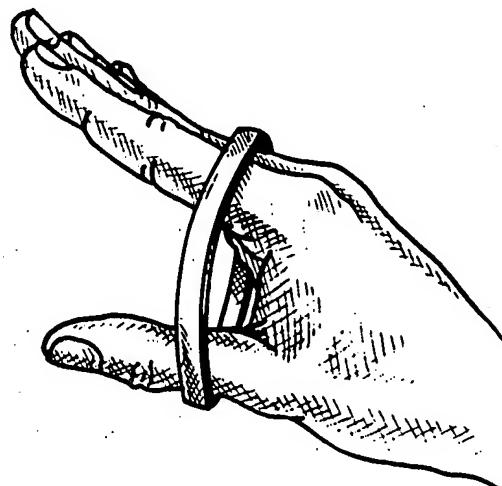


Figure 7b

7b—Place the ring on the outside base of the fingers and middle of the thumb. Pull apart and hold 4-6 seconds. Relax and repeat. When done forcefully you will also see the fingers hyperextend. This exercise is especially important for arthritic people.

(Use either of the Flat Face Rings for Exercise 8.)

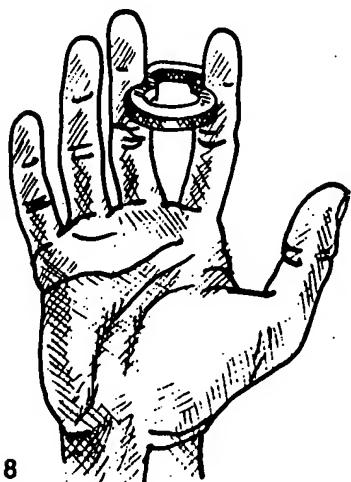


Figure 8

**8) Finger abduction-adduction**—Place the flat outer surface of the EXER-RINGS perpendicular to the fingers in between the index and middle fingers. Hold the ring with the other hand to help prevent the ring from popping out. Squeeze the fingers together sideways, trying to keep them as straight as possible during this action. Relax the fingers and then repeat.

You will note that in some cases the exercise will also help spread the fingers apart, which is needed in activities such as piano playing, badminton, fielding, catching, and so on.

Repeat this exercise by placing the ring in between the next fingers until all have been exercised.



Figure 8a

**8a**—Place the ring between the thumb and first (index) finger. Try to keep the hand as flat as possible, i.e., do not curl the fingers or thumb. Squeeze the thumb and finger maximally. Relax and repeat.

(Use any of the Round Rings for Exercises 10 or 11.)

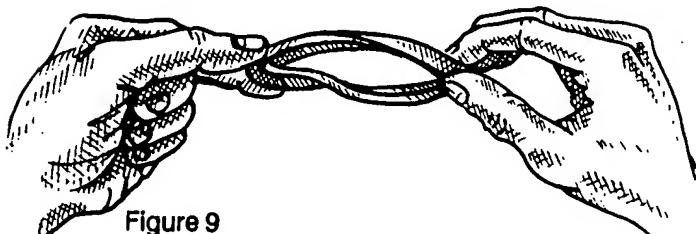


Figure 9

**9) Supination-pronation**—Hold the ring in one hand between the first two or three fingers (on top) and the thumb (on bottom). Assume the same grip on the opposite side of the ring with the other hand. Turn one hand palm up as you turn the other hand palm down. Relax, return to the original position and repeat.

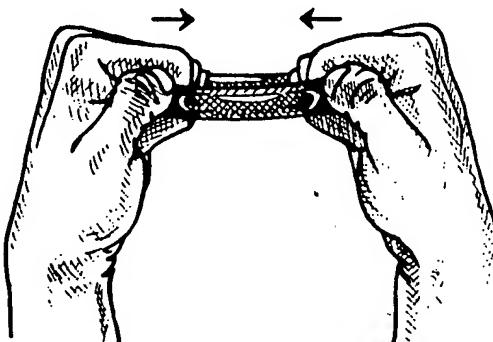


Figure 10

**10) Wrist flexion**—Place your elbows on a table with the forearms up and palms facing together. Hold a ring with the fingers of both hands so that the ring is at an angle to the horizontal. The ring should be held with only the middle and last digits against the base of the fingers and beginning of the palm. Squeeze the ring by flexing the wrists. When done correctly the knuckles of the first digit will touch. Relax and repeat.

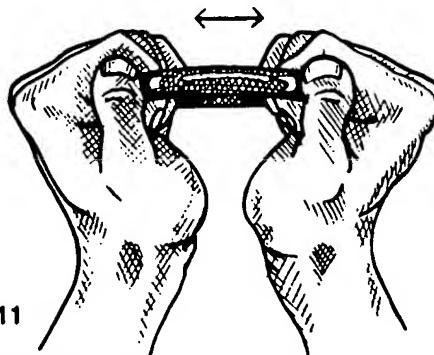


Figure 11

**11) Wrist extension**—Hold the rings as in Number 10 but this time try to pull the ring apart. You will notice the base of your palms moving together. Relax and repeat.

# **EXER-RINGS™**

Patent Pending

## **WORKOUT WISDOM**

Regular use of EXER-RINGS will strengthen your fingers, thumbs, hands, wrists and forearms. Other benefits may include an increase in range of motion and improved agility and dexterity. Depending on your personal goals, you can expect to:

- Improve your performance in sports
- Perform office/household/physical tasks easier and more safely
- Enjoy increased ability in playing certain musical instruments

**CONSULT YOUR PHYSICIAN BEFORE STARTING ANY EXERCISE PROGRAM.**

ROUND SURFACED EXER-RINGS ARE PRIMARILY USED FOR GRIPPING EXERCISES. THE FLAT SURFACED RINGS ARE USED FOR FINGER EXERCISES BECAUSE THEY ARE MORE STABLE.

**FOR MAXIMUM STRENGTH** Do 8 - 10 repetitions while including a two second pause in the contracted or closed position. Follow with a slow release.

**FOR STRENGTH AND ENDURANCE** Do 11 - 20 repetitions going through the full range of motion without the pause.

**FOR STRENGTH ENDURANCE AND COORDINATION** Do as many repetitions as possible very quickly.

If you feel any soreness or stiffness in the fingers, hands or forearms on the following day you should reduce the number of repetitions, sets or use an EXER-RING of lesser resistance.

To insure daily workouts, carry EXER-RINGS with you for use when you have free moments while waiting for appointments; while a passenger in a car, bus, train or plane, while watching TV or during any other free time.

As you use EXER-RINGS and learn their specialized uses, you will be able to create new exercises to suit your individual needs and circumstances. Working with EXER-RINGS can be great fun as well as beneficial. When you place an EXER-RING in your hand, you won't be able to resist squeezing it! It's a great way to reduce tension and stress . . .

EXER-RINGS will not pick up odors, dust, hair or fluids and are non-staining.  
EXER-RINGS are waterproof and are not easily damaged.

Each EXER-RING has its own level of resistance operating over a full range of motion.

EXERQUIPMENT, INC. disclaims any and all liability for EXER-RINGS if they are used for a purpose other than that of an exercise device.

**EXER-RINGS ARE GUARANTEED FOR ONE YEAR FROM DATE OF PURCHASE AND WILL BE REPLACED IF NECESSARY.**

EXERQUIPMENT, INC. strives to work closely with its customers and welcomes your input and suggestions. By continuing this process we hope to promote healthier and stronger fingers, thumbs, hands, wrists and forearms

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.